



***Visioning the Future: Developing the IT Strategy for the
Commonwealth of Massachusetts***

Report from the Workshop

June 2008

Professor Jerry Mechling
Harvard Kennedy School of Government

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Preface

In comparison to others states and governments, how effectively does the Commonwealth of Massachusetts use information technologies? Given its present position, what are the key goals for the future? How should it reach those goals?

These were the questions pursued at the workshop convened June 3, 2008 at Harvard. The report that follows summarizes the dialog and decisions developed.

While the answers here are by no means final, we believe that the progress made at the workshop was substantial. The ideas summarized here should help the Commonwealth respond more effectively to the enormous opportunities and threats raised by applications of information technologies.

We at Harvard were honored on this project to work with the dedicated and talented staff of the Commonwealth. We particularly appreciate the support and guidance of Claudia Boldman, Director of Planning and Strategy, and Anne Margulies, Commonwealth CIO.

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1. Agenda

The workshop was designed to engage Massachusetts IT practitioners in the dialog and analysis required to develop an effective plan.

Prior to the workshop itself, this project involved reviewing past materials and talking with stakeholders including the CIO Council. Pre-workshop activities included developing and having participants fill out the "Compass," a diagnostic survey designed to raise issues and surface initial assessments related to a dozen important initiatives under consideration for priority emphasis. The Compass was also designed to improve collaboration and networking among workshop participants with.

Below is the workshop agenda:



Visioning the Future: Developing the IT Strategy for the Commonwealth of Massachusetts June 3, 2008

Program Overview

The program *Visioning the Future: Developing the IT Strategy for the Commonwealth of Massachusetts* will bring together key leaders from across the Commonwealth to envision the future of citizen services and develop a supporting information technology strategy. The goal of this program is to harness the collective insights of the group and to develop a *Vision and Action Plan* that will specify and guide future Commonwealth-wide IT initiatives.

Context

The environment in which the Commonwealth of Massachusetts operates is changing swiftly. Citizen expectations for enhanced and real-time services, an aging workforce and constituent demographic, emerging technologies and forms of organization, competition both regionally and globally, and constrained resources will impact Massachusetts in direct and measurable ways.

Given this changing environment, the Commonwealth needs to address a set of critical questions and choices in the way its IT strategy helps agencies and partners responds to these forces of change. Broadly, these are:

- Where is the Commonwealth today on IT-enabled citizen services and related issues? How do we compare to our past and other governments?
- Where do we want the Commonwealth to be in the near and long term? How do we need to position ourselves relative to other regions?
- How can we assess the value, build the capacity and generate the support for the initiatives necessary to achieve our vision? How fast can we and how fast should we move?

As a result of this mix of demands, options and choices, the next phase of IT-enabled citizen services in Massachusetts will require initiatives that involve more stakeholders, more collaboration, new ways to work together, and newer and substantially more powerful technologies than the challenges undertaken to date. As is true also for other governments, but perhaps in different ways, Massachusetts will require new capabilities, working models, and relationships that will involve its political, program, and technology leaders.

At this session, we will begin the process of addressing these challenges and creating a pathway to achieve our collective goals.

Program Agenda

Tuesday June 3, 2008	
	Location: Harvard Kennedy School 79 JFK Street, Cambridge MA 02138
8:00 – 8:20	Registration

8:20 – 8:30	<p>Welcome & Setting the Stage</p> <p>Introduction - Anne Margulies, Assistant Secretary and CIO</p> <p>Opening Remarks - Leslie Kirwan, Secretary, Executive Office for Administration and Finance</p>
8:30 – 8:50	<p>Introduction: Purpose, People, Process Anne Margulies</p> <p>This session will address the purpose of the workshop, introduce the participants and outline a three-stage process for defining:</p> <ol style="list-style-type: none"> 1. Where are we? (Commonwealth compared to past, to other governments) 2. Where do we want to go? (Vision and sifting through existing and new options) 3. How can we get there/next steps? (Identify initiatives and how to work collaboratively to maximize returns, minimize risks)
8:50 – 9:15	<p>Structure for Our Work Today Jerry Mechling, Harvard Kennedy School</p> <p>This session will present a framework for decision-making and provide the local and national context for the rest of the day’s discussions. :</p> <ul style="list-style-type: none"> • Elements of strategy: Capacity – Value – Support • Content focus areas: Architecture – Services – Management • Government learning curves • Where are we compared to the past, benchmark studies/scorecards, other state government best practices?
9:15 – 10:15	<p>Panel: Perspectives on the current state of IT in the Commonwealth Facilitated by Jerry Mechling, Harvard Kennedy School Panelists: Anne Margulies, Assistant Secretary and CIO Tom Curran, EOHHS Information Officer Martin Benison, State Comptroller</p> <p>This panel will discuss the current state themes of IT in the Commonwealth, including strengths and challenges, form the following perspectives:</p> <ul style="list-style-type: none"> • The enterprise IT perspective • A secretariat IT perspective • An agency leader perspective
10:15 – 10:30	Break

10:30 – 11:45	<p>Where do we want to be?</p> <p>Jerry Mechling, Harvard Kennedy School</p> <p>This session will present views and ideas from the pre-workshop Compass diagnostic including:</p> <ul style="list-style-type: none"> • Incoming ideas on vision • Incoming risk/return “blink” assessments on a list of ~ 12 ideas • Plenary discussion of top options for further analysis including any new ideas • Small group assignments
11:45 – 1:30	<p>Lunch and Working Groups</p> <p>In this working lunch session small groups will discuss and assess the risks and returns of the ideas identified as top options for further analysis. Groups should identify the top 3-5 ideas to bring back to the group.</p> <p>.</p>
1:30 – 3:00	<p>Where do we want to be? – Working Group reports</p> <p>Facilitated by Jerry Mechling, Harvard Kennedy School</p> <p>In this session the working group leads will report back on the top ideas identified by their groups. Through further group discussion a consensus will be reached on the top 3-5 initiatives to be included in the Strategic Plan.</p>
3:00 – 3:20	Break
3:20– 4:00	<p>How can we get there? Next steps?</p> <p>Facilitated by Jerry Mechling, Harvard Kennedy School</p> <p>This session will discuss what actions need to be taken to harvest the rewards, avoid risks, conduct further analysis and identify major milestones for each of the top initiatives chosen.</p>
4:00 - 4:30	<p>Conclusions</p> <p>From Harvard’s perspective – Jerry Mechling</p> <p>From the Commonwealth’s perspective – Anne Margulies</p>
5:00	<p>Optional Networking and Cocktail Reception</p> <p>Legal Sea Foods Restaurant, Charles Hotel, Harvard Square</p>

3. Welcome and Setting the Stage --

Leslie Kirwan, Secretary, Executive office for Administration and Finance

Secretary Kirwan started the workshop by noting that, for her, it was a return to Harvard, where she had some years before been a student. She briefly noted her career at different posts in the state government and noted people in the workshop who had worked with her at the Commonwealth and/or the Port Authority.

She thanked all participants for the work completed to this point and the work they were about to complete. She noted that technology has become a critical change agent and productivity tool for all organizations. In that context, it is critical for the Commonwealth to excel in developing and executing its technology strategy.

2. Introduction: Purpose, People, Process --

Anne Margulies, Commonwealth Chief Information Officer

CIO Margulies laid out the challenge for the day by summarizing her observations in moving to the Commonwealth from earlier positions at Harvard, MIT, and the private sector. In particular, she related that -- after talking with many people -- her sense was that those working for the Commonwealth were extremely competent and energetic, but generally discouraged that the "IT community" was adrift, lacking a coherent strategy to guide and support needed action.

The goal for the workshop was thus to produce a plan -- not with the detail produced in 2003 IT Commission Report -- but rather a simple shared sense of: a) where the Commonwealth currently stood, b) a vision for where it needed to go next, and c) the basics for getting there.

She indicated her hope and expectation that, if the IT bond bill passes, needed capital investments could proceed, thus providing a vehicle for turning a strategic IT plan into concrete projects and action.

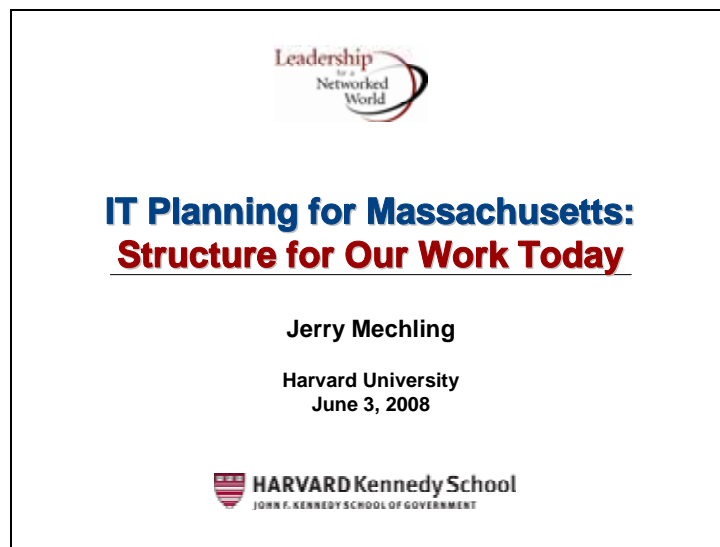
4. Structure for Our Work Today --

Jerry Mechling, Leadership for a Networked World Program, Harvard Kennedy School of Government

This session defined key questions to be answered by the workshop:

- What parts of the extended value chain of state services should be changed?
- How much change should be attempted?
- Which elements of strategy deserve the top priority (taken from a list of 12 critical initiatives currently underway in the Commonwealth)

These questions were described through the following visuals and notes:



In pursuing the objectives laid out by Anne, how will we proceed?

Our goal is to develop a vision with priority initiatives to focus our efforts.

Slide 2



We seek strategic direction. But which of the above perspectives is strategic?

My view: an integration of all, with particular value found by escaping from the daily myopia and pressing issues of the forest floor. To succeed, we need to integrate the 30,000 foot view with concrete next steps.

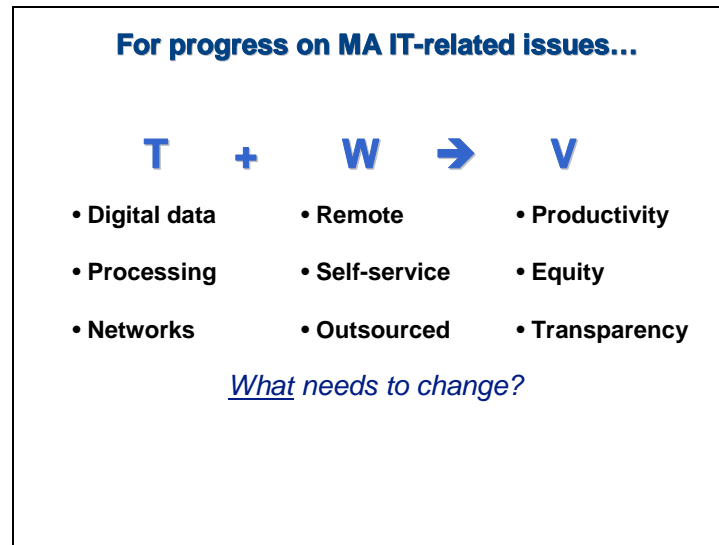
Slide 3

For progress on IT-related issues...

1. What value chain steps to change?
2. How much change?
3. What strategic elements to change?
4. What will we do today?

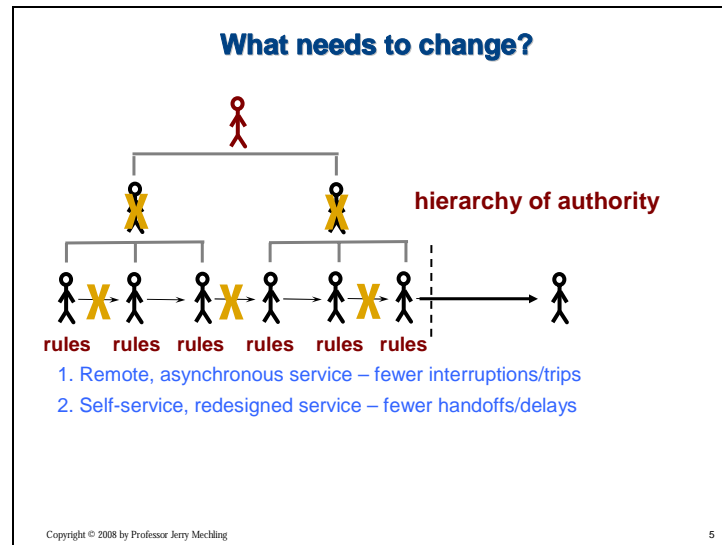


Our main questions to define and then answer together today...



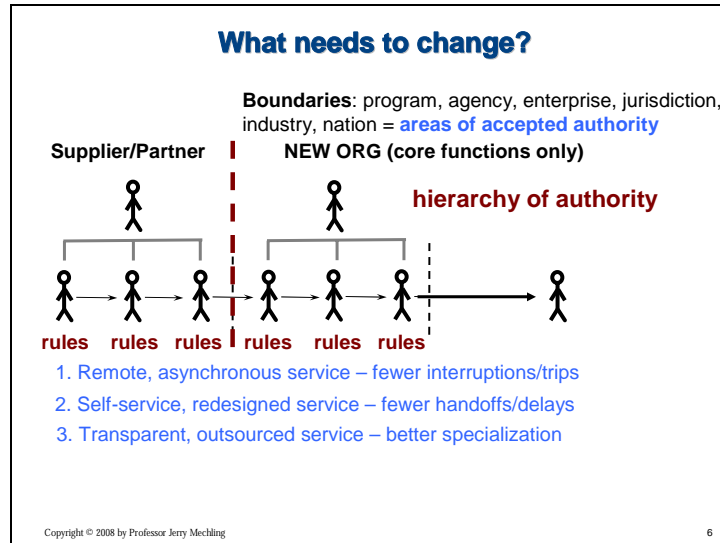
Here's a BRIEF summary of 20 years of Harvard research. We seek to apply this research to the real-world problems of the Commonwealth...

Slide 5



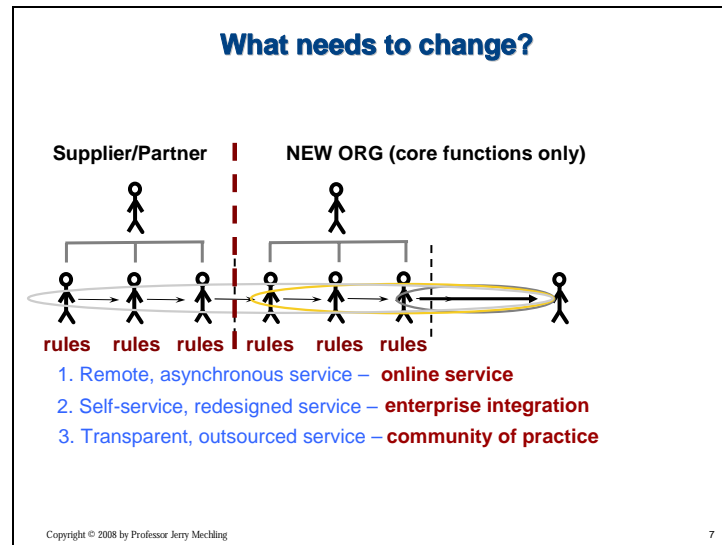
How can we use IT to organize work differently than before? DISCUSSION

Slide 6



Here are the three major moves towards more productive service delivery: remote service, simplified/redesigned service, and/or outsourced service.

Slide 7

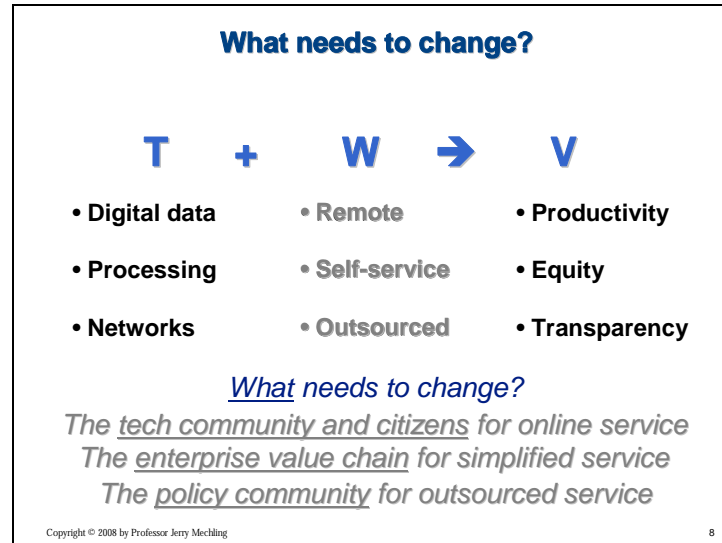


Change gets harder as we require more people to change, and especially when many face anxieties about losing stature and/or jobs. But we're headed there...

We're moving to remote service, self-service, and outsourced service, and also to larger units of change. Around the globe, in both the public and private sectors, IT has emerged as a/the key factor behind recent changes in productivity, equity, and transparency.

So we need to decide how to balance our focus in the Commonwealth on online service vs. enterprise integration vs community of practice reconfiguration.

Slide 8

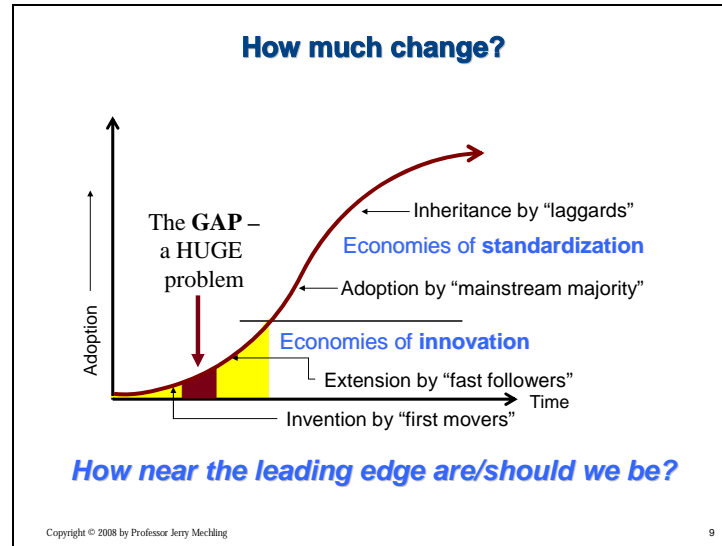


So, to some degree we need to continue to change individual services and the patterns of use by citizens. This requires investment and work by a relatively small community of technology providers in the Commonwealth.

And, to some degree, we need change throughout the value chain within government – this will involve far more people, with many of them worried about their role in the future production process (the "musical chairs" problem).

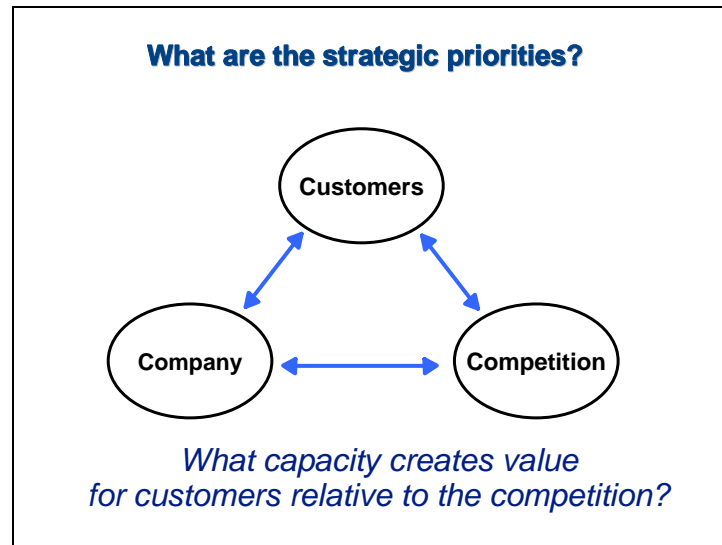
And, to some degree, we need to change the value networks of the entire society, at least the important and information-intensive communities of practice such as health care, lifetime education, counter-terrorism work, etc.

Slide 9

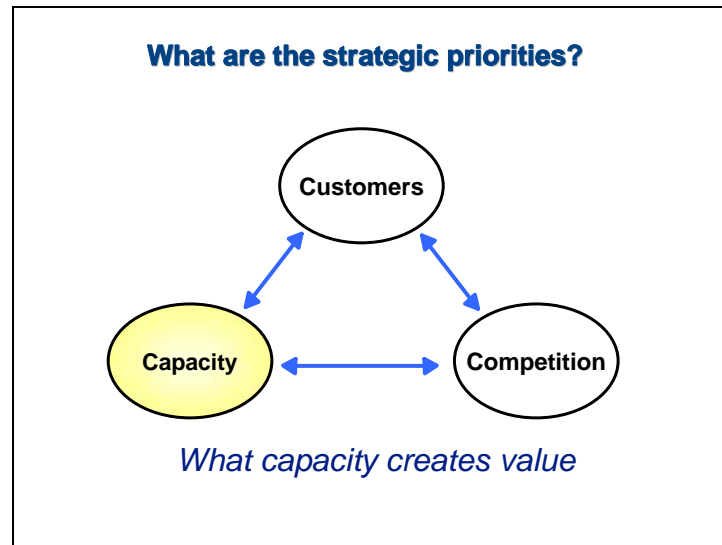


Once we have selected targets for change, we must decide how much change to pursue, including how close we need or want to be to the leading edge of practice. In making these decisions, we note that risk is reduced when the “settlers” (those wishing to move to the performance frontier) can learn more effectively and efficiently from the “pioneers” (those who have moved on ahead). However, it is often difficult for settlers to learn from pioneers. It is known that pioneers love to be first and tolerate the problems of innovation better than settlers who merely want things to work.

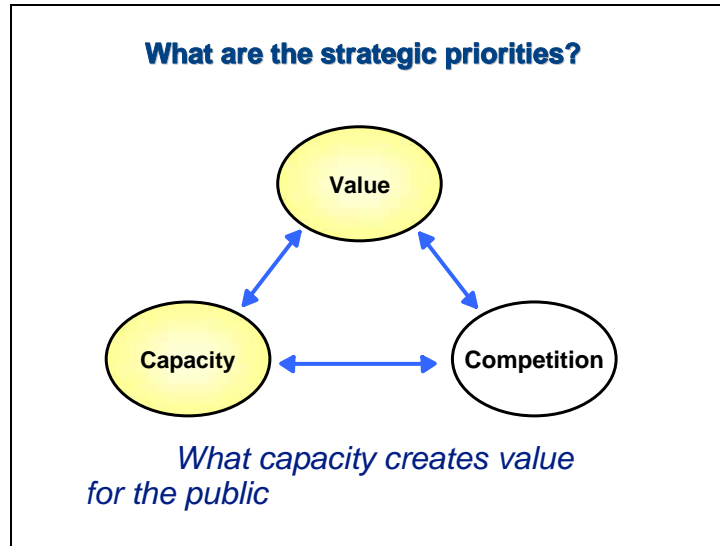
Key questions: Where does the Commonwealth stand re: IT-related performance, and are the returns of moving closer to the leading edge greater than the risks of trying to get there?



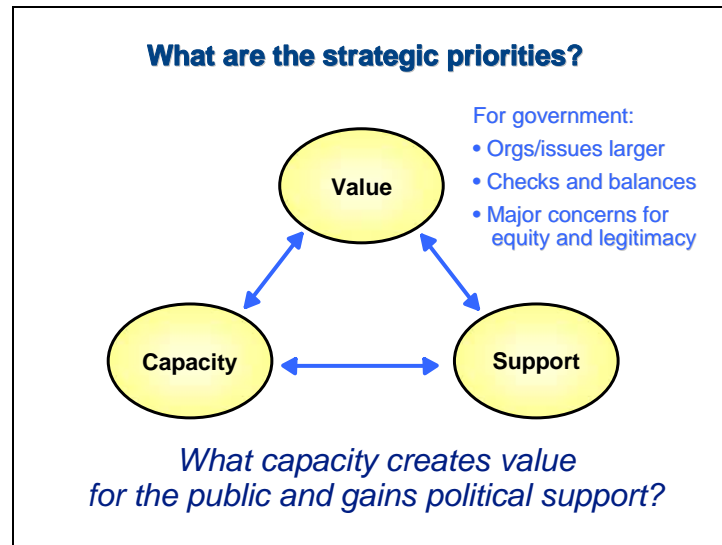
If we know what elements of the value chain to emphasize, and how much change we need to make, what elements of our strategic portfolio will deserve top priority? For guidance here we turn to theories of strategy that were developed first in private sector contexts, with much of the intellectual work crafted at the Harvard Business School. The strategic framework developed at the HBS is similar to but simpler than the analogous framework for strategy that is emphasized at the HKS.



In both the private and public sectors, strategic analysis focuses on three major elements of the organizational environment. In the public sector, as in the private sector, we look first at organizational capacity ...

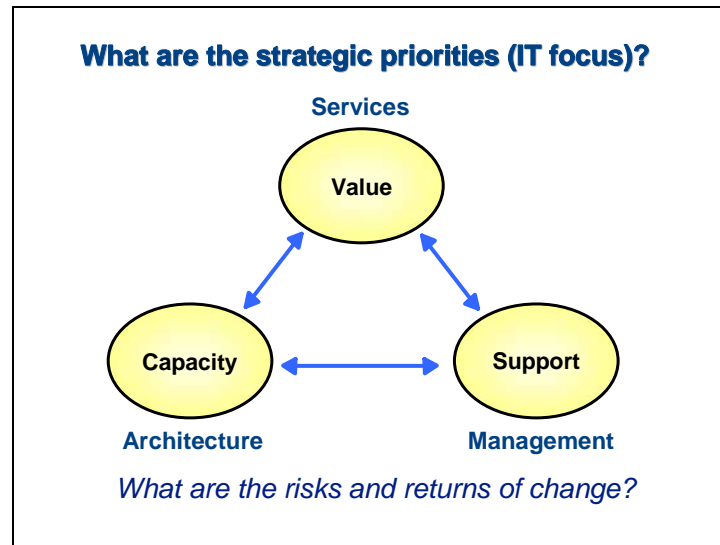


But we in government care about public value, not just private value. Many government "services" are not really services (providing benefits to those we interact with directly), but rather regulations – i.e., the beneficiary is the larger society.



And the third key element for public sector strategy is not market competition, but rather political competition. Our *strategic challenge*: to develop capacity that adds public value in ways supported by the political authorizing environment.

This challenge, in general, must be responded to in an environment where change is purposely slowed down and made difficult. Governments historically have cared more about stability than speed.



But what are the key elements of public sector strategy related to uses of information technologies? We see architecture, services, and management as critical here. A unique organizational capacity for IT-related change is provided by information architectures that scale productively; modern information architectures offer enormous economies of scope and scale while remaining much more responsive to new developments than was the case in previous periods of development.

The way value is produced and delivered is through specific services; strategic thinking thus requires careful thinking about the relative priorities of various services.

And finally, the support most critical for IT-enabled change is provided through management procedures involved in providing staff, funding, decisions on standards, etc.

What will we do today?

1. Level of engagement scan (*forest, treetops, 30,000 ft*)
2. Strategic element scan (*architecture, services, management*)
3. Preliminary assessment (*options*)
4. **Analysis of potential priorities:**
 - *Activities*
 - *Reward if implemented successfully*
 - *Implementation difficulty/risk*
5. Next steps (*vision, initiatives, implementation*)

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Given the above framework for strategy, our work together today focuses on analysis to identify a few critical priorities for collective support and action. As the old saying goes: "More than three priorities is no priorities."

*With a little help
from our friends...*



Onward!!!

With the above framework in mind, let's turn next to an exploration of where the Commonwealth presently stands re: IT-related issues.

Panel: Perspectives on the Current State of IT in the Commonwealth

Martin Benison, State Comptroller; Tom Curran, EOHHS Information Officer; and Anne Margulies, CIO, as moderated by Jerry Mechling

This panel proceeded not as a series of speeches, but rather as a discussion with the panelists and then with the plenary group. The points from the discussion summarized below are not attributed to specific individuals.

The broad picture that emerged: While the Commonwealth five or more years ago was considered in the top rank of state governments with respect to information technology, it has in recent years fallen back into the pack. Other states have moved beyond the early work of creating an online presence and have offered more extensive transactions capability and enterprise-wide integration. In contrast, Massachusetts has "floated" and depended more heavily than the leaders on loose, bottom-up coordination. While the *Governing Magazine* scorecard can readily be faulted as less than systematic or thorough, its "C" to the Commonwealth on information management is consistent with the majority views of practitioners at the workshop.

Specific points on where Massachusetts stands:

- We have fallen behind the front rank of roughly similar states such as Michigan, North Carolina, Washington, and New York
- We have not moved as aggressively as other states and outside institutions on "shared services" for IT (processing, networks, data, services such as identity authentication, etc.)
- We have not leveraged the market power of the state to negotiate the best deals from vendors; networked procurement should improve procurement speed and transparency and respond to the needs of even small departments while gaining volume discounts

- We have found it difficult to recruit staff with the skills required for new technologies and new applications
- We have created an effective portal in ma.gov, with 2 million visitors per month
- We have reasonable plans in place, including those reported in the major 2003 study; however, we have only a mixed record in following through, with uneven compliance with standards and, as yet, no comprehensive network plan
- We have difficulty funding long-term commitments and system upgrades; we need to refresh applications much as we do standardized hardware and software
- If we are falling behind on maintaining systems and software (and we are), we are falling yet further behind on support for new technology and business process innovation
- We have difficulty keeping program/business managers adequately engaged in technology-enabled work process reform; projects are widely seen as taking too long to deliver results
- In a time when network and data standards are of increasing importance, and decentralized/stand-alone applications fall short, we need a new and better balance between individual, bottom-up versus collective, top-down initiatives
- The Common Client identifier will be essential critical for shared services and future progress, but raises huge "big brother" issues. Different laws control the information for different agencies; conflicts among these laws need to be resolved if we are to make substantial progress
- *A fundamental problem, perhaps THE fundamental problem -- in Massachusetts as elsewhere -- is governance. Consensus-only decision making evolves too slowly to keep up with global demands for institutional change.*

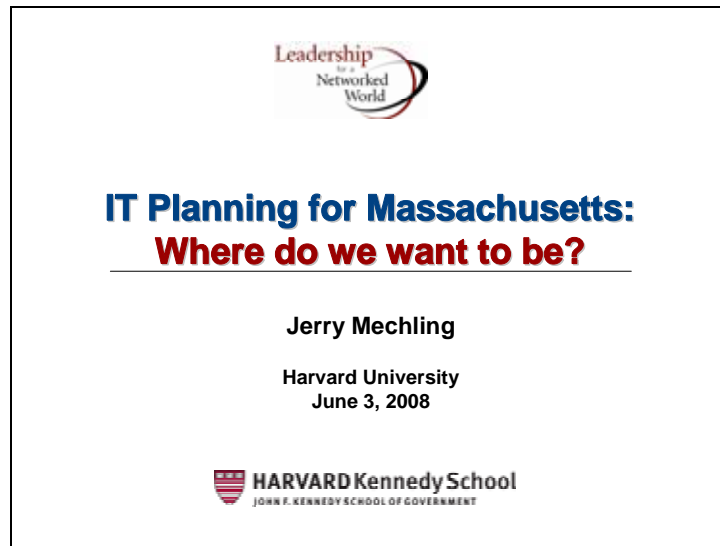
The sense of the above: while Massachusetts has fallen somewhat behind in recent years, much of what has been accomplished is first-rate, and the Commonwealth has the need

and ability to leverage technology and compete effectively in a global, knowledge-based economy.

5. Where do we want to be? (Compass Feedback Presentation)--

Jerry Mechling, Leadership for a Networked World Program, Harvard Kennedy School of Government

Slide 1

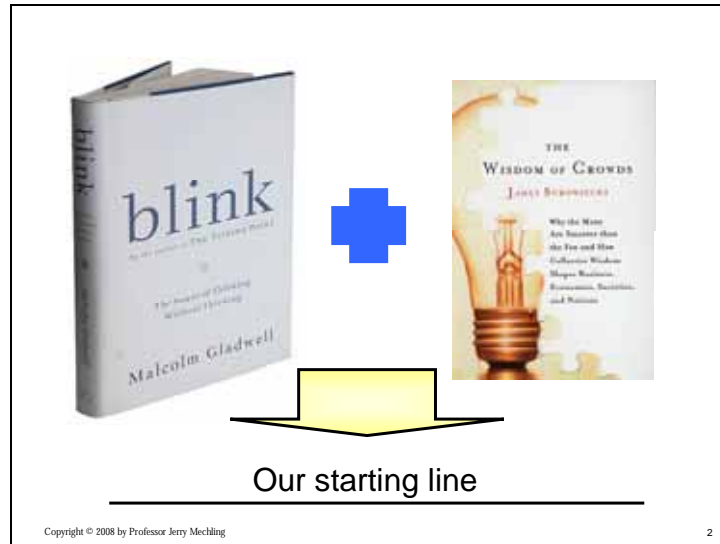


Our key task today is deciding where we want to be.

We came in with ideas from the Compass survey as answered by most of us prior to the workshop.

We'll process those ideas now, identifying top targets for further analysis in small groups. We want to take a list of 12 incoming priorities, add or revise them as needed, and then reduce them to 7 or 8 targets for further examination and decisions before the end of the workshop.

Slide 2



According to two recent studies, the data we're about to review could provide a good starting point for further analysis:

- Malcolm Gladwell's book Blink: this research suggests that our minds have learned far more about how the world works than we may be aware of, and that quick “intuitive” answers to problems are often better-informed than we realize.
- James Surowiecki's: The Wisdom of Crowds: the research documents how groups can produce better answers to many questions than individuals, even the best and most “expert” individuals.

What we are doing with the Compass is developing a “starting line” for our work based on a “blink” and “the wisdom of crowds” assessment through the Compass.

Slide 3

Where do we want to be?

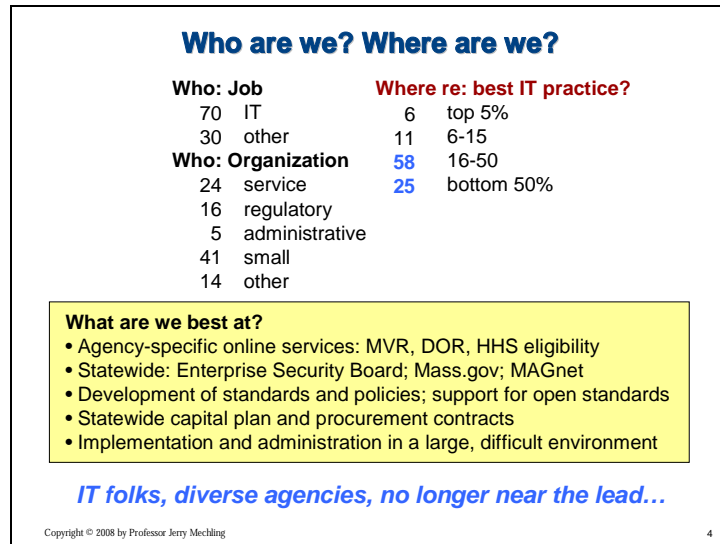
1. Who are we?
2. Which value chain steps to change?
3. Which elements of strategy to change?
4. Discussion/selection of targets



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Here are the questions we addressed through the Compass. We will feed our answers back now and use those to create assignments for small-group discussion and analysis to take place through lunch and throughout the afternoon. And beyond, if need be.

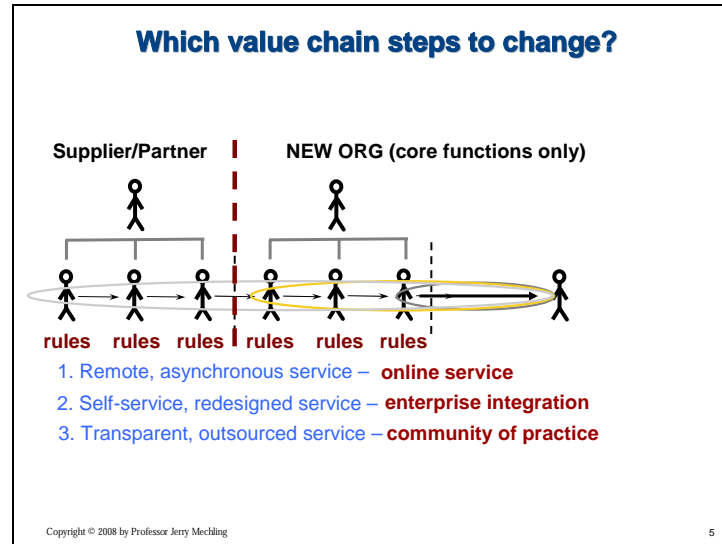
Slide 4



Who are we? Our Compass data suggests that we are primarily IT folks from a diverse set of agency environments. Perhaps most important, all but 17% of the group here believe that the Commonwealth is no longer near the leading edge when it comes to IT-related performance. We have done some great things in the past with respect to specific online services, with particular statewide initiatives, with support for standards including open standards, and with the statewide capital planning process.

In general, however, while most in this room believe that the Commonwealth was quite near the leading edge re: important IT issues some years ago, the recent history has resulted in falling behind so that the Commonwealth now falls somewhere in the middle of the pack. One in four in this room believes that Commonwealth falls in the bottom 50% of states re: IT-related performance.

Slide 5



To change our position, we need to focus on which elements of the value chain need change. We note that it gets harder to change as more people are involved, and especially when those involved have anxieties about loss. This is the “musical chairs” problem. Inevitably, however, economic pressures related to global knowledge-based services are pushing us into a need to adapt in these more aggressive ways...

The three big moves are: to remote service, self-service, and outsourced service; this is basically to larger units of change

Research that has followed these moves documents that IT has become a/the key factor behind recent changes in productivity, equity, and transparency. Much is at stake. While productivity improvement is driving much of the investment and work, leaders worry appropriately because many individual projects are reported to fall short of their goals (even failing completely), and because many of the concerns about equity and transparency are problematic (income distributions are getting more skewed, and moves to transparency often threaten traditional values of privacy).

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In looking first at the major “community of practice/global issues,” what are the problems facing the Commonwealth (and are these issues ones where IT will have an important impact on future solutions)?

Still, social and economic pressures seem to be pushing inexorably towards a more networked global economy, and – lagging somewhat – towards a more networked set of governance standards and enforcement.

## Slide 6

**State/Community of Practice Problems...**

- Threats and opportunities of global knowledge-based economy; prepare students to compete globally
- High cost of living and housing; can't keep younger workers
- Age-based and income-based digital divide
- Need for stable and adequate government funding
- Terrorism
- Better schools – more jobs – increased civic engagement
- Get Feds to balance budget; control costs of health care
- Aging infrastructure
- Improve civic engagement, connectedness

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At the 50,000 foot level, some of the key problems for Massachusetts as identified in the Compass answers are listed above.

An advantage Massachusetts holds over many other states and governments is attracting competent university students from around the globe. A difficulty then, is providing graduating students with an environment they can afford as they start their careers and families.

There are obviously many other problems where information infrastructure and applications could make a difference.

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We can keep these in mind as we turn to opportunities to focus on priorities for change within the government enterprise.

Slide 7

Government/Enterprise Integration Problems...

- Education opportunities to stem outmigration of young adults
- Structural deficit, health care costs, deferred maintenance
- Physical infrastructure: roads, bridges, water supplies
- Funding including tax complexity problems derived from federal complexity
- Respond to different age-based communications patterns, moving from backyard to mall to IM, etc.
- Civic engagement and coordinated services via 311 ++
- Structural budget deficit requires cost-cutting via simplified processes and structures
- Move to true shared services model, but will require statewide project mgt, funding, org and legal changes

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The Compass surveys also identified key problems for Commonwealth government as a single enterprise.

A number of these priorities focus on the governmental side of problems identified earlier as broader societal problems: e.g., health care, education, high costs including the costs of government, etc.

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The Compass also identified some specific service priorities as seen by workshop participants on an incoming basis...

## Slide 8

### **Individual Service/Delivery Problems...**

- Encourage civic engagement supported by a “single face” to government – including local and federal as well as state.
- Integrate/upgrade legacy infrastructure, apps into SOA
- Leverage procurement clout for savings and capacity expansion as in broadband
- Address the true economics of Open Source
- Collaborate via communication and standards, not command and control
- Set example for privacy; protect against identity theft
- Act on the fact that IT can be a catalyst to save costs.
- Promote shared services across the enterprise for more efficient service in a time of diminishing resources
- Recruit from the “silver tsunami” for needed skills.

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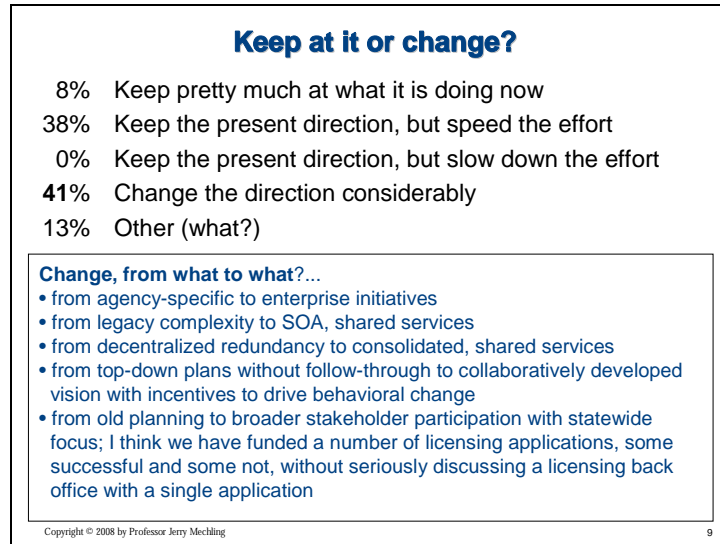
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Participants identified a variety of problems and opportunities at the level of individual services.

These ideas provided context and some specifics for dialog at the workshop. The discussion focused on sifting through the initial long list of possibilities to identify a short list – perhaps three or so priorities – that would deserve key focus in establishing strategic direction and focus for the future.

Workshop question: On what elements of technology-related performance should the Commonwealth be truly in the first echelon?

Slide 9

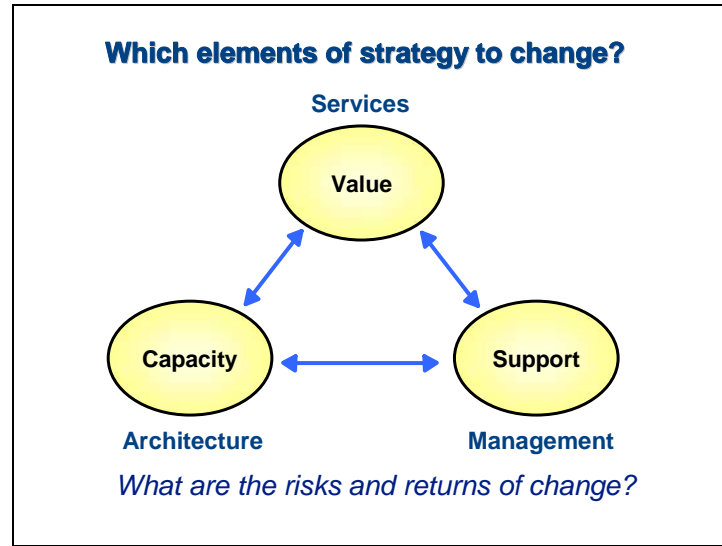


A key decision in establishing strategy is whether to pursue existing goals or shift substantially. The group was roughly evenly split on these possibilities for the “blink” analysis of the Compass.

Those recommending a change in direction emphasized the need for enterprise-wide collective endeavors. This is consistent with the experience of many governments where the trend is to move from working program-at-a-time on electronic services towards enterprise-level integration that simplifies the world for citizens/customers. Many governments are moving to a more responsive information infrastructure (SOA, etc.) in order to keep up more flexibly with ongoing demands for innovation and change.

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After asking the above open-ended questions to identify community-of-practice, enterprise-level, and service-level strategic targets, the Compass next explored twelve initiatives identified prior to the workshop as potential strategic priorities.



The 12 were introduced in three categories reflecting the HKS public sector strategy model as adapted for IT issues. The analytic goal was to identify targets where the returns would be attractive in spite of the risks. Participants were asked to evaluate each option on a 1 to 5 scale where 1=low and 5=high to describe:

- **Involvement.** To what degree is work on this particular option already a priority?
- **Value.** To what degree would additional work create additional public value?
- **Confusion.** To what degree would progress require overcoming confusion – i.e., stakeholders/supporters would need to learn what to do and how to do it?
- **Conflict.** To what degree would progress require overcoming conflict – i.e., stakeholders/supporters would need to believe that the option was in their personal interest?

The Dozen incoming options were described as follows:

ARCHITECTURE OPTIONS

- **Enterprise Security Plan.** Develop an enterprise-wide IT security plan consistent with established best practices.

- **Network Architecture Plan.** Develop an enterprise network architecture plan that addresses voice/data convergence, reduces duplication and redundancy, and accommodates scalability for future needs.
- **Consolidation at the Secretariat Level.** Plan and implement initiatives to improve the efficiency and effectiveness of IT services across agencies for each secretariat.
- **Shared Infrastructure Services.** Work collaboratively to develop shared infrastructure services that can be used by multiple agencies to support Service Oriented Architecture applications.

SERVICES OPTIONS

- **Identity Management.** Develop plans for an enterprise identity management framework for Commonwealth employees, business partners and citizens.
- **Electronic Records Management and Preservation.** Develop an enterprise approach for the life-cycle management of electronic records from records creation to final disposition.
- **Geospatial Information Systems.** Develop plan to support GIS as an enterprise resource that can provide geospatial functionality to all agency applications where appropriate
- **Learning Management.** Develop an enterprise approach for learning management that addresses the common needs of agencies.
- **Civic Engagement “Killer Application.”** Identify and implement transformational uses of IT to promote civic engagement with the aim of increasing state government transparency and access

MANAGEMENT OPTIONS

- **IT Recruitment and Training Program.** Enterprise-wide coordination of IT staff recruitment and staff development activities.

- **Project Management Methodology.** Consistent project management standards and expectations across all agencies to ensure projects are completed on-time, on-budget, on-value.
- **IT Procurement Coordination.** Coordinate IT procurement efforts across entities of the Commonwealth to leverage our purchasing power for best price and optimal services.

Assessing Strategic Priorities for Massachusetts...

	Strategic Elements	Inv	Val	??	XX
architecture	1. Enterprise security plan	1	5	3.0	2.9
	2. Network architecture plan	6	2	3.2	3.4
	3. Consolidation at secretariat level	4	1	3.6	4.1
	4. Shared infrastructure services	1	4	3.6	3.3
services	5. Identity management	7	7	3.3	3.4
	6. Electronic records management	8	8	3.3	3.1
	7. Geospatial information systems	12	12	3.1	2.7
	8. Learning management	10	10	2.7	2.6
	9. Civic engagement 'killer' application	11	11	3.6	3.3
mgmt	10. IT recruitment and training	9	9	2.8	3.0
	11. Project management methodology	5	6	3.1	3.0
	12. IT procurement coordination	3	3	3.0	3.0

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The Compass analysis focused on twelve options, all of which are important for the Commonwealth and all of which need attention and resources.

What the survey sought was to identify which of the twelve, if any deserved front-burner priority as key elements of the Commonwealth's IT strategy.

The options garnering top attention at present, according to the survey, were: the enterprise security plan, shared infrastructure services, IT procurement coordination, and consolidation at the secretarial level. Rounding out the top half of the current involvement or "as is" priorities were work on the project management methodology and the network architecture plan.

What was interesting for the Commonwealth was that, somewhat in contrast to other jurisdictions and mixed groups which have taken similar surveys, the "as is" priorities translated rather directly to the "value" (or "should be") priorities. Without taking into consideration the feasibility of adding value through any of the initiatives, the top value-generators, in order, were estimated to be:

Consolidation at the secretariat level

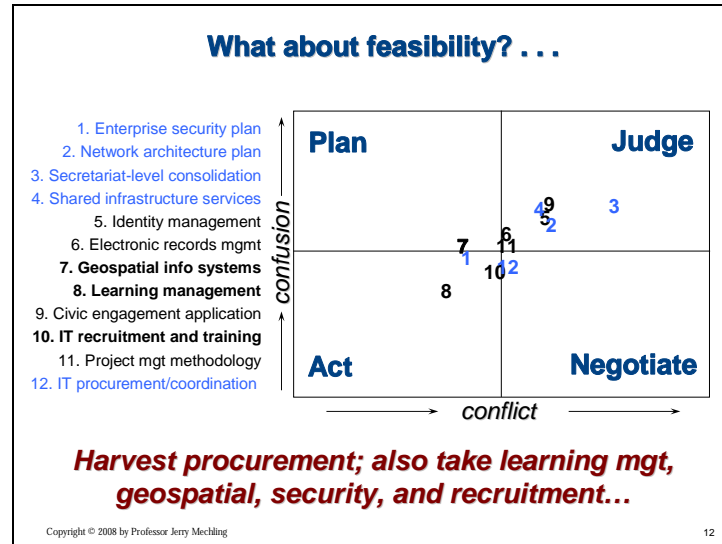
- Network architecture plan

- IT procurement coordination
- Shared infrastructure services
- Enterprise security plan
- Project management methodology

Each of those projects made it into the “next round” of discussion and analysis to be considered in small groups.

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In addition, the Compass analysis suggested that several ideas might be considered as particularly ripe for implementation and action, having relatively low barriers of confusion and conflict.



Confusion and conflict present barriers to feasibility and therefore help identify the leadership tasks most important for success. In some cases leadership focuses on “sharing the vision” through planning, pilot projects, education, etc. In other cases leadership requires “sharing the benefits” through better negotiation and project design.

The assessments of workshop participants ran “southwest to northeast” as is true for most such group assessments; they also spread the results a good deal, which is common when a wide range of options is being considered. Note, for example, that “3. Secretariat-level consolidation” – the #1 option in terms of expected value to be produced – was also the most difficult, with greater problems of conflict than confusion to be overcome in creating value through that set of activities. It is common for the most valuable options to be those with big obstacles to overcome during implementation.

In this sort of analysis we often search for valuable options that seem relatively easy to implement. Here it is notable that “2. Network architecture plan” was not only the second best in terms of expected value produced, it was among the easiest and, again, one where conflict was a bigger barrier than confusion as a barrier to be overcome.

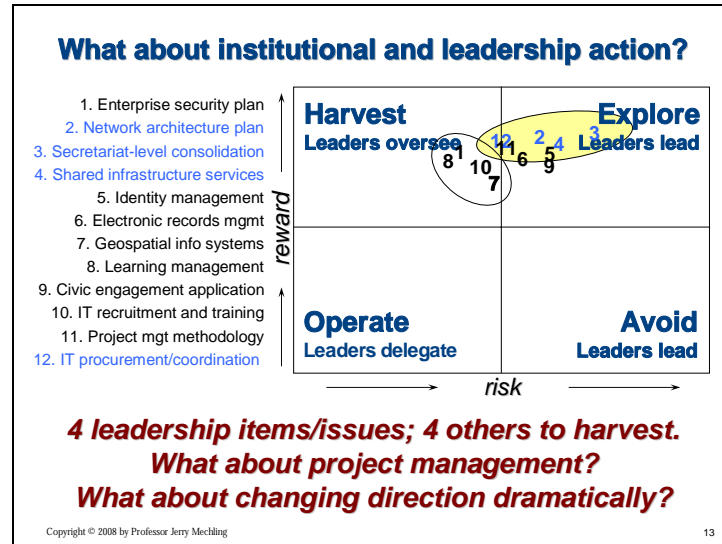
These assessments suggested three options as important to add to the preliminary “short list” of options:

- Learning management – as the estimated easiest of the dozen opportunities for value creation
- Geospatial information systems, where the problems of planning seem greater than those of negotiation
- IT recruitment and training, where the problems of negotiation seem greater than those of planning

Taken together, the high value and high feasibility options were considered in reducing the initial dozen options down to a list of 7 for further analysis in small-group sessions.

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These options were also discussed in terms of the degree of direct involvement required by leaders to “make them happen.”



The Compass scores were also displayed with combined risk (the average of the confusion and conflict scores) together with reward (the value score). This suggested that the top four value options were risking enough to require careful and extended implementation attention by senior leaders.

The low risk options, on the other hand, were valuable enough for investment but could be more readily delegated to middle management. For these projects, it is important for leadership to be sure that progress is being made and overseen, but the issues are “standard” enough to be largely worked out at lower levels of the authority hierarchy.

With these “pre-workshop” assessments available to start further discussion and analysis, the group needed to winnow down the initial list of twelve into 6 or 7 that could be explored in more detail in small groups.

Slide 14

Where do we want to be?

1. Who are we?
2. Which value chain steps to change?
3. Which elements of strategy to change?
4. Discussion/selection of targets



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That discussion was carried out during the final section of the “Where do we want to be?” session.

MA vision/position?

Going forward risks/returns

0	high risk/low return
13	low risk/low return
53	high risk/high return
32	low risk/high return

Issues/Next Steps (comments)

- Be clear on costs
- Be clear on implementation/union roles
- Find alignment between agency service needs and collective action/infrastructure
- Agree on priorities and measure deliverables

So, how close should MA be to the IT best-practices leading edge?

And what should be the strong suit?

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In defining the “short list” that would be further worked to hopefully identify roughly three major priorities for the Commonwealth, part of the discussion explored the overall risk and return profile of the Commonwealth IT agenda.

It was interesting to note that roughly half the group felt that the returns were high but the risks would also be high. Note that roughly one-third felt that the returns were high while the risks were relatively low. This is an attractive combination, and perhaps seen to be available to the Commonwealth because it is no longer at the front of the IT performance pack. Relatively safe steps can be taken to come forward towards the leading edge.

The two questions for discussion that were most important at this point:

1. How close should the Commonwealth want to come to the leading edge, and
2. What issues should get the most attention?

If the Commonwealth wants to come to the front on some but perhaps not all IT agenda items, what should be the strong suit?

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To identify the very top priorities, the initial list of 12 was cut to eight as summarized on the next chart

**Top targets?**

- Secretariat-level/other BPR reform/consolidation
- Architecture/infrastructure
- Procurement
- Security
- ===
- Recruitment/training
- Geospatial
- Civic engagement
- Identity
- ===
- Comments and other initiatives? What do we want to be best at together? From 8 to 3???

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The list of eight was proposed by taking those at the top on the “value” list along with several from the “easy” list and one that was added due to the general discussion of what was potentially unique about the Commonwealth in comparison to what was being done in other jurisdictions: that was the possibility for “civic engagement” work. This was interesting as an extension of the “service delivery” work that has been common in many jurisdictions, but is being pushed to engage the public more via Web 2.0 and other technologies that have been applied more frequently in political campaigns and by other non-governmental social movements than by governments per se. Given the high interest of the public in transparency, it was felt that civic engagement deserved careful discussion.

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To explore the “short list” in more detail, small groups were formed.

Reports: 5 minutes + 5 minutes

- Theme
- Priority initiatives
- Steps to make successful

===

- Q&A

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The small groups were given assignments to pick a theme, roughly three priority initiatives, and some early steps needed to make their recommendations successful. The details of the small group assignments can be seen in Appendix A.

* * *

So, by the end of the “Where Do We Want to Be?” session we had shortened the list of 12 to 8 and begun the discussions and analysis required to shape a more focused strategic direction for the Commonwealth.

*With a little help
from our friends...*



Onward!!!

6. Small Group Assignments and Reports

After an hour and 45 minutes of working in small groups, each group came back to the plenary session with a report. Those reports are briefly summarized below, with the main themes integrated as a collective vision and plan in the next section.

Group 1

Group 1 argued that the Commonwealth needs to focus on infrastructure (the foundation for the future) supported via procurement consolidation (to aggregate demand for better vendor services and results). Proper infrastructure will lead to common services via more readily-executed business process reforms.

The agenda for process reforms should focus on certain business lines and lead to better civic engagement. This will require authentication capacity for network security. (Without an authentication infrastructure, civic engagement would unfortunately become "lipstick on a pig.") The Commonwealth has a good foundation for building authentication capabilities through recent work of the Enterprise Security Board.

A good initial focus for applications would be licensing services. Licensing work will need proper governance to maintain funding and a plan. This, in turn, will require overcoming both legislative and regulatory impediments. What is required is a business case showing the benefits of better licensing to citizens and, through this, the benefits of new infrastructure.

The theme of this work is to make Massachusetts more accessible and effective for all. Execution will require process streamlining at the Secretariat level, with leadership through senior business leaders (not technical staff only). Support must come through architecture and infrastructure work teams, aided by a new capacity for identity management.

Beyond immediate licensing improvements, pilot programs via blogs and wikis should start a dialog for broader civic engagement. Innovations in civic engagement will also

require leadership from the "business" (not technical) side of government. The Commonwealth needs to be a leader -- not lost in the middle of the pack -- when pursuing world-class services/civic engagement.

Group 2

The second group also emphasized infrastructure and civic engagement, pointing to consolidation as a key Commonwealth priority. To harvest value from consolidation, however, ITD must become more than a consultant offering advice on best practices. It must also serve as a "joiner," making binding governance decisions of benefit to all even when decisions do not emerge through consensus (the easy way).

Critical infrastructure for shared services and engagement will include e-payment processes with related security and identity authentication. Equally important will be procurement reform to support asset management at the statewide level while simultaneously avoiding excessive "one size fits all" standardization.

Harvesting the benefits of infrastructure-enabled enterprise services and civic engagement will require educating the legislature along with broader stakeholder groups. A road map needs to be developed and then made effective through disciplined implementation.

Group 3

Group 3 emphasized that, while all seven of the agenda elements they were asked to evaluate were important, they found that they could organize and clarify the road ahead through two primary themes.

The first was a need for more engaging relationships with citizens. The goal is relationships that citizens can readily value and trust. Citizens must not feel confused by or excluded from government, but rather welcomed into relationships involving policy inputs as well as service outputs.

To create this deeper kind of citizen relationships, the Commonwealth will need open standards throughout the production chain including an enterprise-wide focus for

procurements. Real change is needed in procurement in order to efficiently bring in assets and services from vendors and other Commonwealth business partners.

Group 3 emphasized that there is room to get citizens involved in service planning as well broader partnerships with citizen constituencies and the legislature. The Internet is making non-geographically defined issues and groups important. It is also offering Web 2.0 social networking possibilities that urgently need to be explored.

Group 4

Group 4 noted that the time has come for the Commonwealth to focus its IT agenda more outside. It is no longer adequate just working on internal processes. The Commonwealth needs to create direct value for the public and their political representatives. The key is to focus not only on how to do things, but on what things need doing.

Still, the priority agenda will focus heavily on consolidation, as it will for most governments. In Massachusetts; the critical "level" for consolidation/efficiencies of scale will lie within the individual Secretariats. A key role for ITD, as noted in the Compass diagnostics produced before the workshop, will be to support secretariat-level consolidation.

Externally, a key priority will be to focus on talent acquisition and development, and on networking that engages not only citizens but also Commonwealth employees.

The acquisition of new talent is becoming ever more critical. Employees are leaving and the demographic trends are obvious. As we replace some (but not all) of the exiting workers, we are hampered by job descriptions that are often 50 years old and inappropriate for today's technology and production methods. We need support for "career pathing," buddy mentoring, partnerships with education and training institutions, and -- in general -- a work environment that incoming "network generation" employees will find compelling.

We also need to focus on civic engagement from the perspective of state employees as well as citizens. Creating properly transparent relationships will require the establishment of metrics and benchmarks so we can understand where we stand in a more objective and

meaningful fashion. Measures have long been valuable, and are now increasingly available at reasonable cost. Making transparency feasible should be a top priority.

Group 5

This group noted the fragmentation and differences in the many IT-related initiatives across the state. These were creating critical yet difficult-to-reach needs for enterprise-wide action: on security, ID management (extending HHS work outside HHS), e-learning, licensing, procurement, and other possibilities for shared services.

However, to gain support for such a diverse agenda, we must make infrastructure meaningful as an essential tool. That will require making specific new innovations and services visible frequently, not in the slow, behind-the-scenes manner used to develop new capabilities in the past.

As Group 5 worked on the details, an aggregate vision emerged. They saw that the Commonwealth could create great value through an IT agenda but, much as was true during colonial times, *only by coming together to share benefits and risks together*. Therefore, the theme for the new IT agenda could be: *Comm-Together*.

To make such a theme understandable and trustworthy, we need to benchmark progress regularly against plans and the experience of other jurisdictions. We should focus on rapidly implemented increments -- deliverables within three months or less. This type of modular implementation represents a major new opportunity compared to what was possible only a few years ago.

Group 6

Group 6, similar in many ways to the other groups, emphasized the priority of addressing the three major sections of the value chain: a) improving relations with external suppliers, especially via simplified and secure procurement procedures; b) improving enterprise-wide business processes to gain consolidation efficiencies (to the extent that turf issues can be resolved); and c) using new technologies for service delivery and civic engagement, leveraging peer-to-peer relationships while also providing more customer-friendly web services.

Success with the above will require enterprise security along with decisive governance to manage plans and keep funding available for initiatives that cut across program boundaries. Executive sponsorship at high levels will be essential.

Group 7

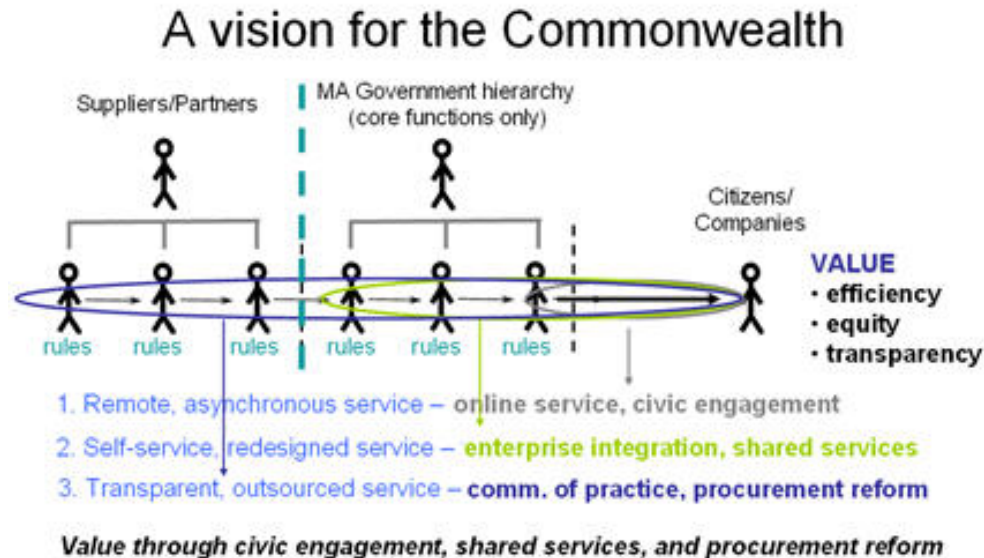
Group 7 also emphasized consolidation for better procurement and enterprise-wide production. To succeed with more efficient methods will require trustworthy security, decisive governance, replacing staff who retire with staff bringing new skills, and -- perhaps most important -- disciplined project management. In Massachusetts, as in many governments, a history of late, costly, and underperforming projects has created a significant barrier to gaining support for further investments.

Moving forward on services and civic engagement will clearly remain a priority. Massachusetts needs to build on past successes in offering "online, not in line" services. Group 7 noted the importance of the business community as a critical 'customer' for online services. The service agenda needs steps to create a simplified "single face of government" (with MA.gov as a good portal, but needing extensions). Improved services and engagement will also require shared services along with better metrics including outcome measures.

7. The Vision and How We Can Get There --

Professor Jerry Mechling, Harvard Kennedy School

In reviewing the small group reports, three goals emerged as most critical, along with a high-level strategy for implementation. The goals map to major segments of the government value chain: the segment that delivers services to outside clients; the segment that coordinates production within the Commonwealth, and the segment that coordinates with outside suppliers and business partners. These goals -- for civic engagement, enterprise integration, and procurement reform -- are illustrated in the following diagram:



In brief, the goals are to:

1. **Use new technologies not only to extend and simplify online services, but to strengthen civic engagement;** this goal continues to improve online services AND ALSO engages citizens and companies through social networking and greatly improved government transparency.
2. **Consolidate and integrate service production at the enterprise-wide level, especially through shared administrative services (financial, HR, IT, etc.);**

this goal harvests efficiencies of IT scope and scale that are desperately needed as an aging population requires services but can't afford new taxes.

3. **Develop better public-private-partnerships through procurement reforms;**

this goal is to efficiently leverage the state's market power while developing networked relationships to turn government, as appropriate, from "rower" to "steerer" in creating public value.

In combination, the above goals should dramatically add value for the public:

- **Efficiency** should be improved through each of the above goals, saving citizens and companies from disruption and duplication in their transactions with government, allowing services to be organized at the most efficient scale, and improving transparency, accountability, and related pressures for improved performance and innovation. Similar moves with technology have been documented as the greatest single factor in recent improvements in economic productivity overall. These moves are now ripe for deeper and broader application within government.
- **Equity** should also be improved, making it easier to reach clients, corporations, and communities that are presently underserved due to location (those in rural, low-income, or other hard-to-reach communities), language (those whose English is not adequate for many service and/or work-related interactions), and/or disabilities (hearing, eyesight, mobility, etc.). While technology over the past 50 years has been most readily adopted by the well-to-do, the potential for more equitable distribution and social inclusion is substantial.
- **Transparency** (and related accountability) may be the value most dramatically improved through IT-related investment. In a digital world, far more information can be cost-effectively collected, analyzed, and distributed than ever before. For many citizens, the potential for transparency (something government both should and could deliver) is more important than the potential for efficiency (something that should be possible but -- at least as seen by many -- something governments rarely deliver). To see the potential of Web 2.0 tools for civic engagement and government transparency;

just look at new applications such as Chicago Crime

(<http://chicago.everyblock.com/crime/>), the Obama campaign, and other recent developments.

To create the above value we need public, legislative, and executive support to build organizational capacity, along with the analytic skill to assess how we are doing and make mid-course corrections as required.

While we did not have time at the workshop to explore implementation in detail, several ideas were suggested for getting civic engagement, enterprise integration, and procurement reform off the ground:

- **Capacity:** We will need:
 - *budgetary support*, especially multi-year funding for Commonwealth-wide innovations. The Bond Bill may be important here. It will also be important to identify key internal and external funding sources from the budgets of agencies most likely to benefit relatively quickly from the new investments. What is the compelling business case?
 - *staff skills* including people with proper technology and project management experience and, most important, those who can provide executive sponsorship. Implementation issues will NOT be situations where existing lines of authority are particularly relevant or clear. Success will require wise judgment and drawing new lines.
 - *new infrastructure and standards*. All the critical initiatives will require proper standardization of data, processing, and communications. In most cases, the Commonwealth will need to adapt to Service Oriented Architecture standards from outside rather than develop unique approaches.
- **Analysis:** What are the appropriate input, processing, and output/outcome measures? What can the Commonwealth commit to delivering and how soon? If we want to be

at the leading edge of civic engagement, enterprise integration, and procurement reform, what are the right specific goals and how will we know we have succeeded?

- **Support:** How can we mobilize and sustain support? What will be needed from external partners, the Legislature, and departmental leadership? We note that a key resource should be the recent development of ability to implement via incremental, quick deliverables -- initiatives that show results in 3 months rather than 3 years. It's possible that transparency in a Web 2.0 world may be largely self-sustaining; the relatively easy work of putting targets and information out for discovery and analysis may generate the pressure needed to persevere and ultimately succeed.

The above program is risky, to be sure. But nothing in today's world is without risk. The biggest risk for the Commonwealth may in fact be in continuing to drift too far back from the technology leading edge. Massachusetts, like most governments, needs to avoid the fate of the boiled frog: i.e., the frog that was unable to notice a slowly rising water temperature until it had lost its ability to escape. Massachusetts, if it fails to provide infrastructure and services that are efficient and responsive, is in danger of losing to other communities around the globe.

The Commonwealth needs to move to the front on civic engagement, enterprise integration, and procurement reform.

8. Conclusions --

Anne Margulies and Jerry Mechling

Mechling

Where we go from here depends on the next wave of feedback from stakeholders with key interests and expertise. We need a plan to motivate and guide IT initiatives within the Commonwealth. But this need not be a greatly detailed plan.

What is essential is a shared vision that mobilizes the right leadership and support. It has been very interesting to work at Harvard and see how government leaders from places like the Netherlands and Singapore come here to see what's happening in the U.S. and what they can take back to their environments.

It seems unfortunate that we see more people from Singapore than from most U.S. cities and states including Massachusetts. If we are to compete successfully we must see what others are doing. If we in government are too insular, too blind to the emerging new threats and opportunities, and too much of a drag on the overall economy -- well, we are simply going to lose out.

I would recommend that you find a foundation or other funding to allow you lunch or breakfast sessions perhaps once a month. Keep the "civic engagement, enterprise integration, and procurement reform" agenda visible. Bring others from the region and beyond who are working these issues and learn from them. We haven't had time to explore your goals in depth, but I am optimistic about your thinking. I would love to see the Commonwealth make real progress on this agenda.

Margulies

Observations: I am amazed at the lack of disagreement given the diversity of this group. I think we will be able to move forward together on this. The 2003 IT plan had ambitious lists but often got lost in the details. Our conversation today went to a more visionary place. We constructively raised new ideas about civic engagement. This is a cross-cutting

theme and we need to look at how we can embed and align this with our more traditional investments. We want the pieces to contribute to exciting and more powerful forms of civic engagement.

Our focus today included the major initiatives we've been working on for some time. I think our challenge now will be to merge the Enterprise and Engagement. We need to get some positive excitement into our vision. I know the tendency to slip into fear mongering -- "if we don't do X, then we can't do Y." While downside "burning platforms" may provide needed motivation, we also need to take our more visionary conversation from today and make it into something actionable. We need to figure out good ways to keep this conversation going, and to turn it into measurable and sustained progress.

We are lucky to have such institutions as all those represented in the room today.

I look forward to the next steps. Thank you.

Appendix A

Food, and Food for Thought Working Group Assignments June 3, 2008

Over lunch, we need your groups to deepen our analysis and provide ideas to help define the vision and substance of the “Where We Want to Be” discussion that comes next.

Each group has been given the shortened list of candidate IT-related priorities for the Commonwealth. We need each group to bring back a report that: a) defines a brief theme and vision for the Commonwealth’s IT Strategic Plan; b) identifies three top priority initiatives in pursuing that vision; and c) suggests key steps for making the enterprise-wide shared IT agenda successful.

We recommend a process somewhat as follows:

1. Select a group **facilitator** (one who will guide discussion and keep the group on time) and a **reporter** (one who will deliver the group’s report back to the plenary session)
2. Allow each member of the group to spend some time getting thoughts together individually
3. As a group, discuss/analyze each of the initiatives on the “currently live” list. (*You should probably take about 50 minutes max on this part of your work*):
 - a. What is the short list of activities needed to implement each initiative?
 - b. What are the rewards of “normal” success?
 - c. What are the expected risks of this initiative? (And what might be done to manage each?)
4. Select your *top three initiatives*
5. Decide if you would like to add a “reach” initiative. Is there a new idea that represents a truly significant or transformational innovation that could add great excitement and value to the portfolio? If so, give it the same analysis as above.
6. For your portfolio (3 or maybe 4 initiatives), develop a *theme or vision* that can include all of them. If these are the things Massachusetts is to be known as best at, what are these things and why are they the ones we want to be known for?
7. Develop a short list of steps required on an “enterprise-wide” basis to make your theme/vision/portfolio successful
8. Develop your “elevator speech” report for the plenary session. You will have 5 minutes for your report, and about 5 minutes after to answer questions.

Best regards and good luck!!! We’ll see you back in L-280 @ 1:30 p.m.